Names & Concepts:

Semmelweiss – change is hard!

Deming – 14 points; ‘Made in Japan’

Donabedian – S/P/O

Berwick – Industrial Model

Baldrige – to Medicine (at last)

- Time: 1980s
    - Era of Three Letter Q
    - (Deming, Juran, Crosby, Baldrige)
- brought statistical control to business
- emphasized customer feedback & satisfaction
- shifted focus to process improvement

Key features of 3LQ

- Problems are due to processes, not people
- People are the solution
- Solutions require measurement, analysis and change
- Every process can be improved

Quality

in the

Veterans Health Administration

Subtitle: “*Entropy doesn’t have to win*.”

1990 - 1991 Challenges in VHA

- GAO Investigation (JCAHO) 7/90
- Prime Time Live “expose” 9/90
- Chicago Tribune series on VA 1/91
- Cong. hearing on “quality” in VA 3/91
- (Plus Desert Shield & Storm, three other active IG or GAO investigations, etc…)

1990 : Health care QA:

- RM (torts, O.S., incidents)

+

- Patient Satisfaction

+

- JCAHO survey & accreditation

- VA = same

1990 QA in VHA:

- Small, third tier office in Headquarters
- Little resources
- Less credibility
- Focused on “bad Apples”
- Local activity seen as “police action”

August 1990 changes in QA in VHA:

- placed in first tier
- renamed “Office of Quality Management”
- obtained funding

Where are we going ?

The Goal or Mission :

- For VA = deliver high quality health care
- For OQM = prove it

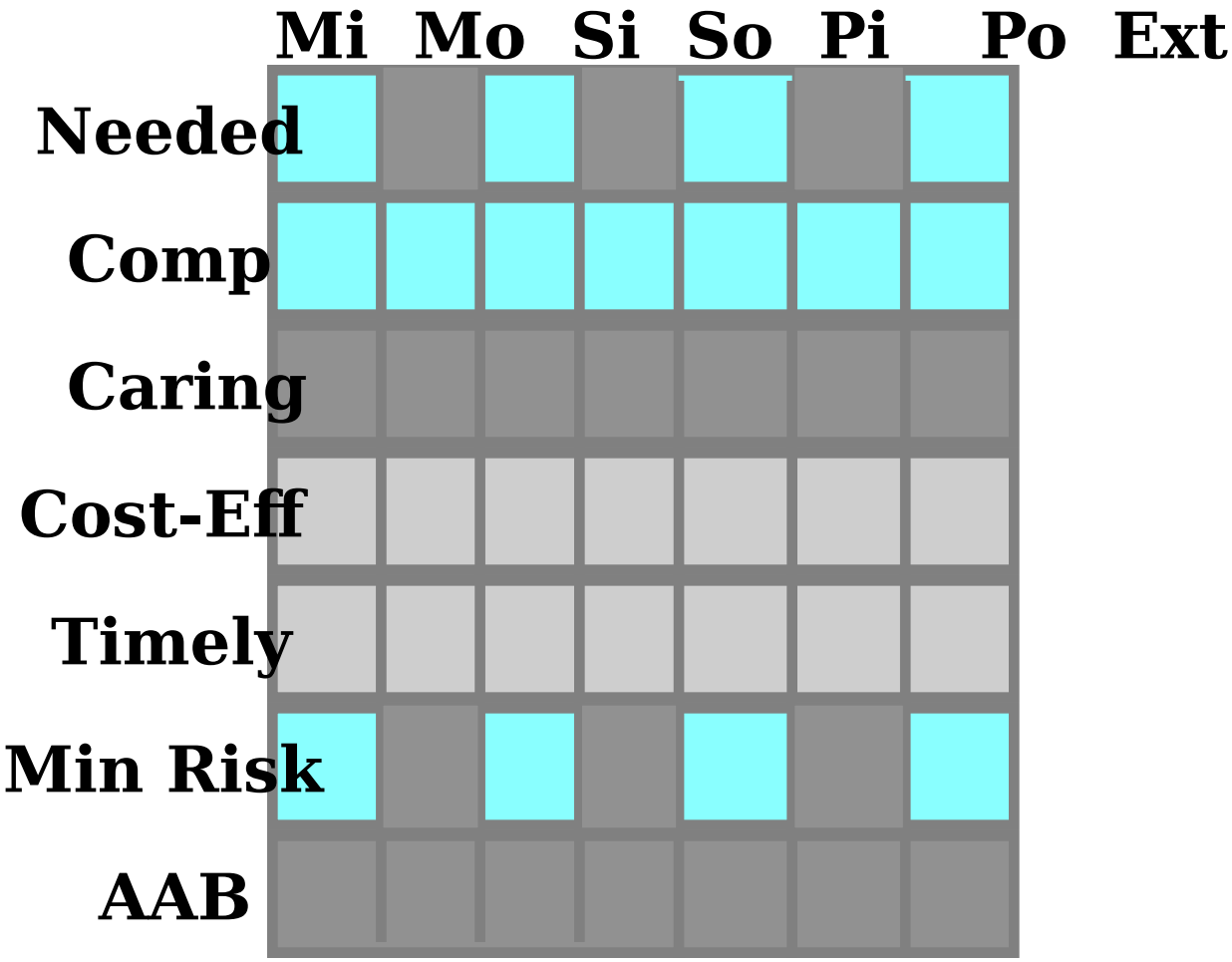
& improve it

- ***Where are we?***
- Need a definition of quality
- Need broad field clinician involvement
- Need to understand current measurement activities

Definition of Quality

- Needed
- Competent
- Caring
- Cost-effective
- Timely
- Minimize risk
- Achieves achievable benefits

The Quality Matrix



VHA actions re Matrix findings:

- Stopped some measurements
- Started pruning other measurements
- Began to develop measures targeted to fill in the empty Matrix cells

Physician involvement

- ☑ Task Forces / work groups
- ☑ RFAs & presentations
- ☑ Advisory groups
- ☑ Training
  - ✓ for knowledge
  - ✓ as Trainers
- ☑ On-site visits

VHA's new programs (tools):

- Quality Improvement Checklist (QUIC)
- External Peer Review Program (EPRP)
- Patient Feedback Program
- Surgical QI Program
- Risk Management
- Quality Matrix

QUIC

- automated data-retrieval system
- clinical indicator measurements
- semi-annual collections
- comparative reports
- many cases of QUIC-based improvement

Jt Comm J Qual Improv 1994; 20:127-139

External Peer Review Program

- "Community" clinical guideline based
- Explicit criteria; panel review of data
- National, trended comparative reports
- Future:

✔ aggregate data analysis

✔ focus on improvement implementation

Fed Prac 1995; 12:31-38

Patient Feedback Program

- Reports, not ratings
- Patient-based categories
- 40 questions; mail-out response =_____
- In-patient & outpatient surveys
- LTC survey in development
- SF - 36 now included

Surgical Q I Program

- began with PL 99-166 (retrospective)
  1992-1995 collected = 88,000 cases
- Risk-adjusted O/E ratios calculated
- '96 data base = >300,000 cases
  (similar program in cardiac surgery)

J Am Coll Surg 1995;180:519-531

National Surgical Quality Improvement Program

The VA Continuous Improvement in Cardiac Surgery Study

Annals Thoracic Surgery 1994; 58:1845-1851

Continuous assessment and improvement in quality of care: the VA model

Annals Surgery 1994; 219:281-290

The National VA Surgical Risk Study

J Amer College Surgeons 1995; 180:519-531

Risk Adjustment for Assessment of Quality of Surgical Ca

Mortality: *J Amer College Surgeons* 1997; 185: 315-327

Morbidity: *J Amer College Surgeons* 1997; 185: 328-340

Quality Matrix

- Automated display
- Fed from DHCP
- Consumer Reports-like warning icons
- National comparatives with graphs
- Local use only (no “roll-up”)
- Adjustable limits

QMS - [Matrix]

QMS

	Outpatient Medicine	Inpatient Medicine	Outpatient Surgery	Inpatient Surgery	Outpatient Psychiatry	Inpatient Psychiatry	Extended Care
Needed	●	●	●	●	●	▲	●
Competent	●	●	●	●	●	●	●
Caring	●	●	●	●	●	●	●
Cost Effective	●	●	●	▲	●	●	●
Timely	●	●	●	●	●	●	●
Minimizes Risk	●	●	●	▲	●	●	●
Achieves Achievable Benefits	●	▲	●	●	●	✕	●

LEGEND

● Within Control Limits This Period

▲ Outside Control Limits This Period

✕ Outside Control Limits for 4 Consecutive Periods

QMS - [Matrix]

	Outpatient Medicine	Inpatient Medicine	Outpatient Surgery	Inpatient Surgery	Outpatient Psychiatry	Inpatient Psychiatry	Extended Care
Needed	●	●	●	●	●	▲	●
Competent	●	●	●	●	●	●	●
Caring	●	●	●	●	●	●	●
Cost Effective	●	●	●	▲	●	●	●
Timely	●	●	●	●	●	●	●
Minimizes Risk	●	●	●	▲	●	●	●
Achieves Achievable Benefits	●	▲	●	●	●	✕	●

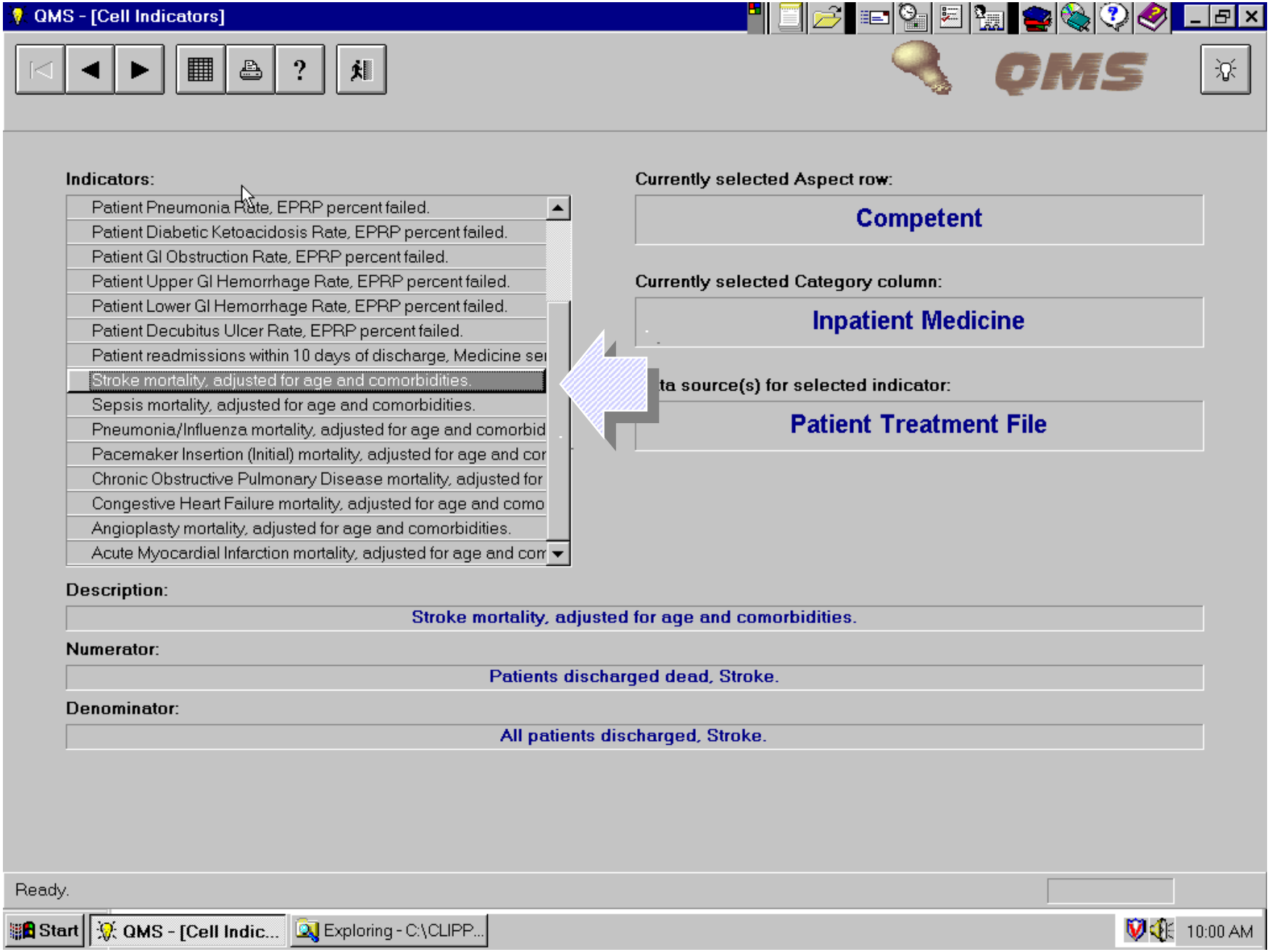
LEGEND

● Within Control Limits This Period

▲ Outside Control Limits This Period

✕ Outside Control Limits for 4 Consecutive Periods

QMS - [Cell Indicators]
QMS
Indicators:
Patient Pneumonia Rate, EPRP percent failed.
Patient Diabetic Ketoacidosis Rate, EPRP percent failed.
Patient GI Obstruction Rate, EPRP percent failed.
Patient Upper GI Hemorrhage Rate, EPRP percent failed.
Patient Lower GI Hemorrhage Rate, EPRP percent failed.
Patient Decubitus Ulcer Rate, EPRP percent failed.
Patient readmissions within 10 days of discharge, Medicine se
Stroke mortality, adjusted for age and comorbidities.
Sepsis mortality, adjusted for age and comorbidities.
Pneumonia/Influenza mortality, adjusted for age and comorbid
Pacemaker Insertion (Initial) mortality, adjusted for age and cor
Chronic Obstructive Pulmonary Disease mortality, adjusted for
Congestive Heart Failure mortality, adjusted for age and como
Angioplasty mortality, adjusted for age and comorbidities.
Acute Myocardial Infarction mortality, adjusted for age and com
Currently selected Aspect row:
Competent
Currently selected Category column:
Inpatient Medicine
Data source(s) for selected indicator:
Patient Treatment File
Description:
Stroke mortality, adjusted for age and comorbidities.
Numerator:
Patients discharged dead, Stroke.
Denominator:
All patients discharged, Stroke.
Ready.
Start
QMS - [Cell Indic...
Exploring - C:\CLIPP...
10:00 AM


QMS - [Cell Indicators]
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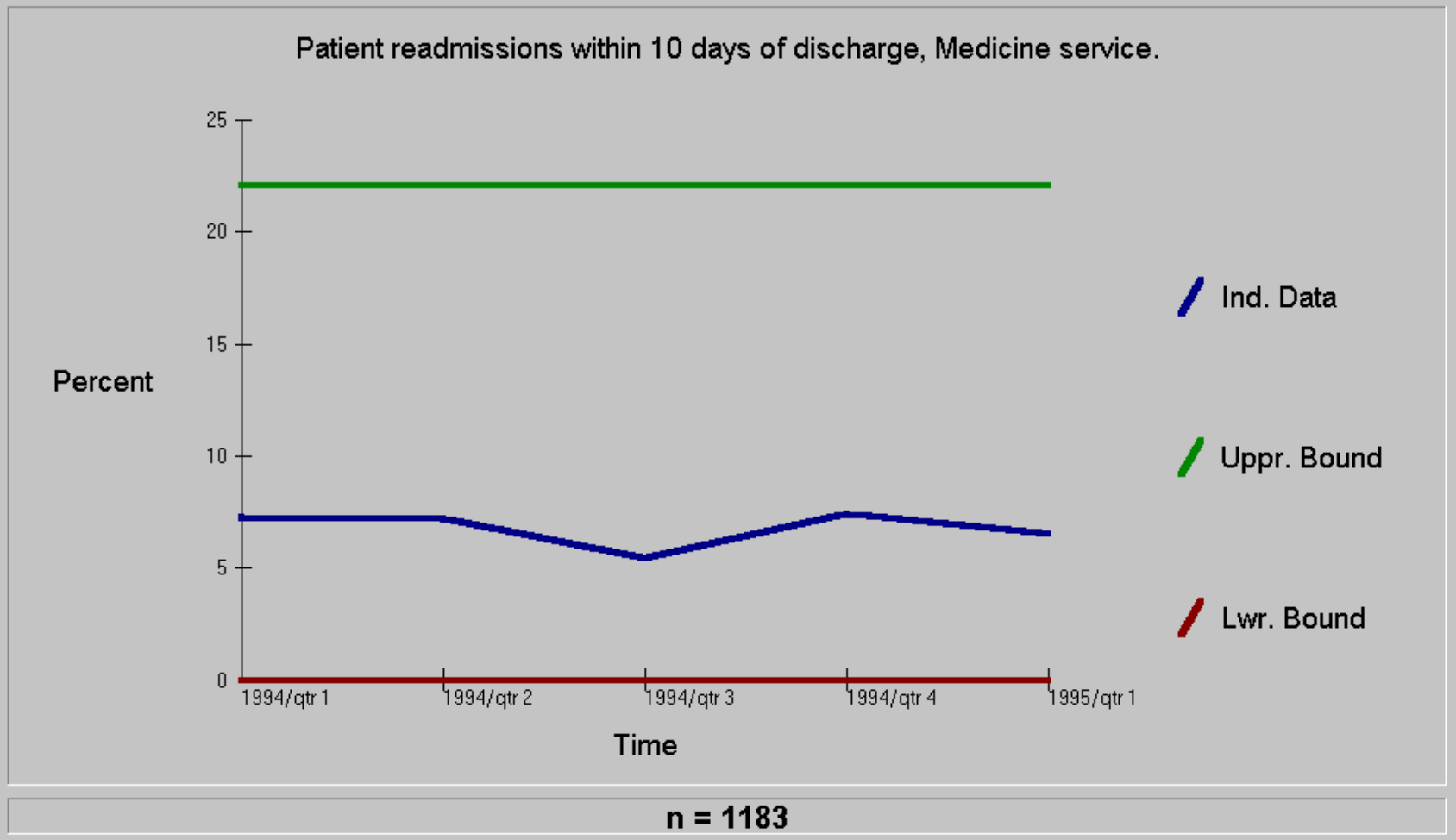
Start
QMS - [Cell Indic...
Exploring - C:\CLIPP...
10:00 AM

QMS - [Graph]

QMS



n = 1183

Ready.

Start | QMS - [Graph] | Exploring - A:\ | 10:07 AM

Total Quality Management

National Roll-out over three years

Initial Consultant to Train-the-Trainer

Problems from unions & middle management

Physician involvement planned early

Accelerating pace with successes

Fed by Baldrige as a management system

VHA Performance Agreements

- Core Competencies
- Special Emphasis Areas
- Performance Measures

Core Competencies

- Interpersonal Effectiveness
- Customer Service
- Systems Thinking
- Flexibility/Adaptability
- Creative Thinking
- Organizational Stewardship
- Personal Mastery
- Technical Competency

Special Emphasis Areas

- **Employer of Choice**
- **Safe Work Environment**
- **Timely prosthetic services**
- **Patient Safety**
- **One VA**
- **Quality Framework**
- **Service to Special Populations**
  - **SCI, AO, POW, Homeless**

Performance Measures

- **Quality**
  - **PI, CDI, NSQIP**
- **Functional status**
  - **SCI**
- **Satisfaction**
  - **CSS**
- **Access to Care**
  - **Wait times, telephone triage, follow-up**
- **Cost of Care**
  - **New SSNs, Direct/Indirect $ ratio**

Prevention Index

- **Eight clinical circumstances**
  (influenza, pneumonia, tobacco, alcohol, screening for cancer of breast, cervix or colon)
- **Based on Guide to Clinical Preventive Services**
  U.S. Preventive Services Task Force (HHS)
- **All interventions weighted equally**
- **Calculation:**

$$\frac{\text{\#patients receiving the intervention}}{\text{\#patients eligible for the intervention}}$$

Vaccine Cuts Pneumonia Risk in High-Risk Patients

Archives of Internal Medicine
1999;159:2437-2442

NEW YORK, Nov 08 (Reuters Health)

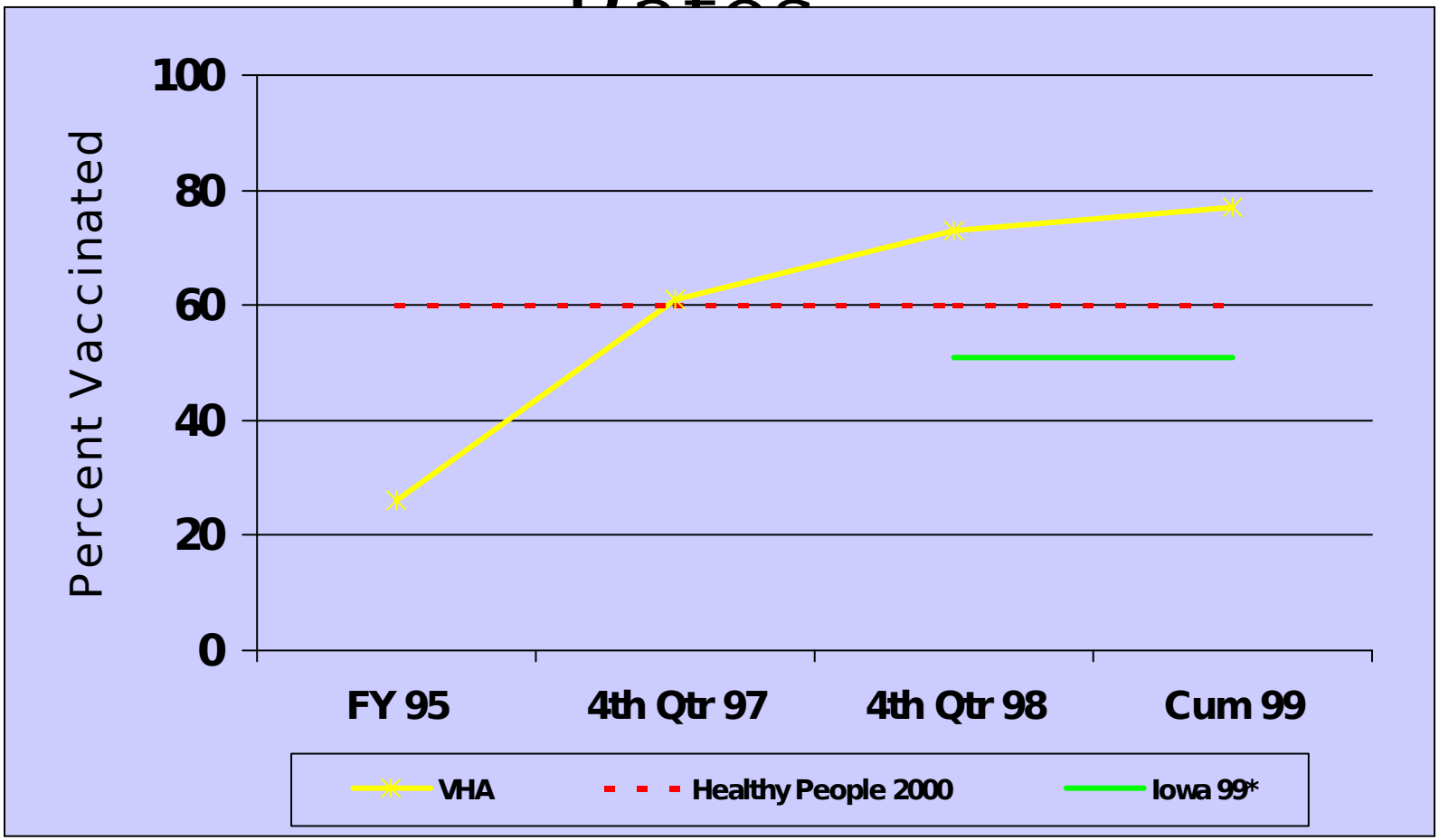
•50% of elderly and high-risk Americans have not received the pneumococcal vaccine.

•VA Study: 1,900 elderly patients with chronic lung disease; 2/3 vaccinated..

vaccination related to:

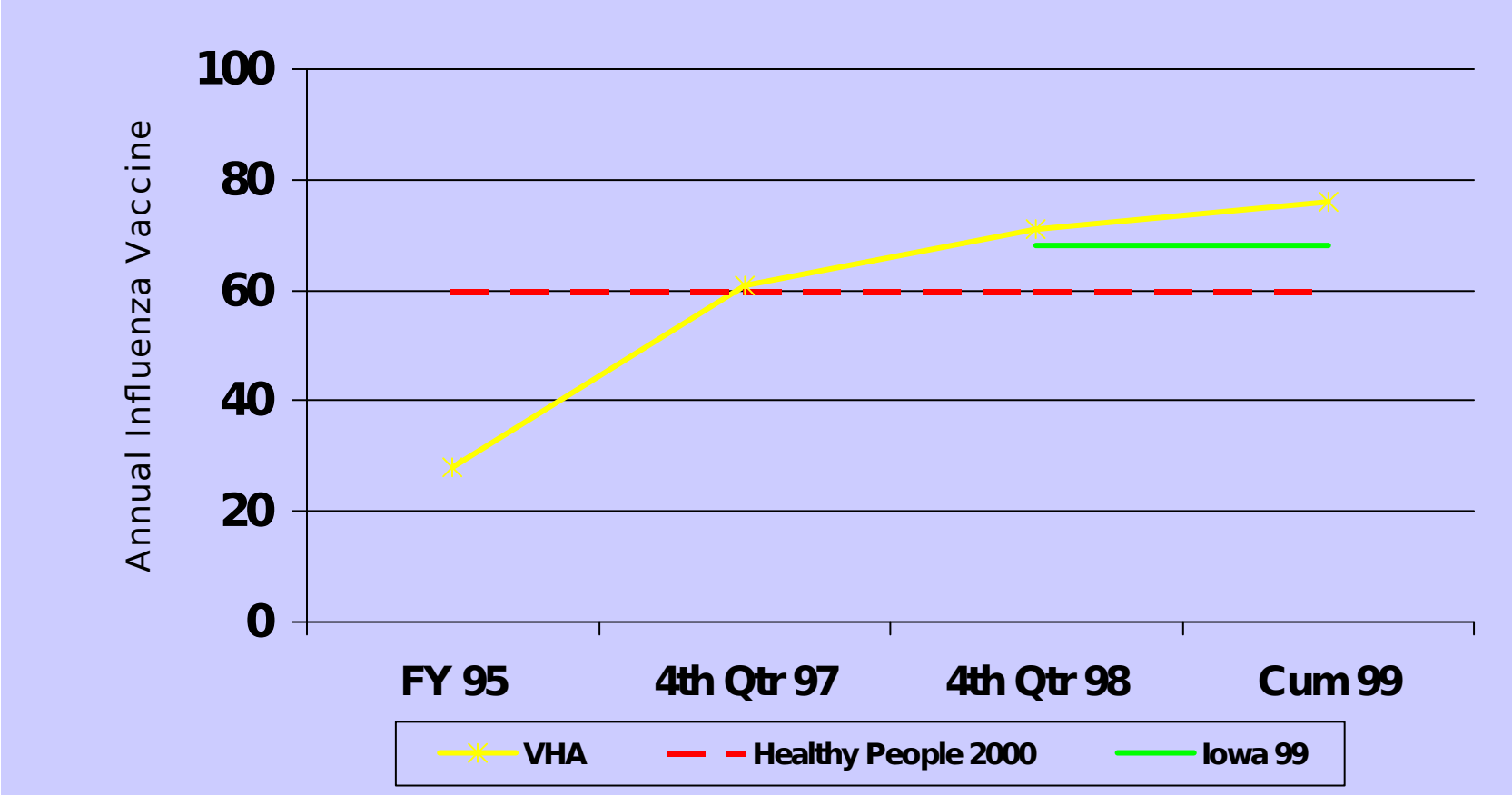
- **43% less hospitalizations for pneumonia and influenza,**
- **29% reduction in the risk of death from all causes,**
- **saving an average of $294 per recipient**

Pneumococcal Vaccination Rates



* Iowa: Petersen, *Med Care* 1999;37:502-9. >65/ch dz

Influenza Vaccination Rates

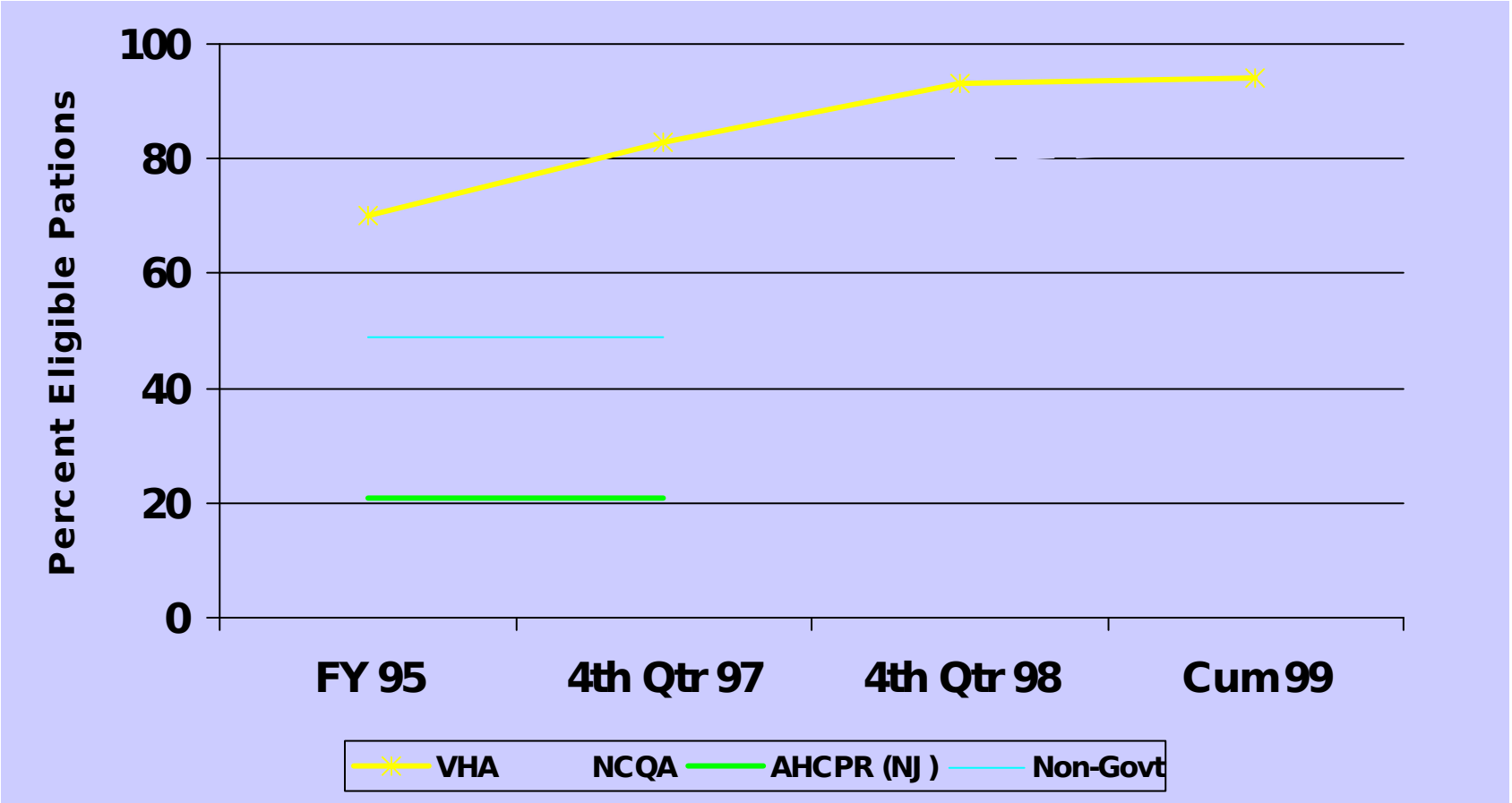


Chronic Disease Care Index

- **Five high-volume diagnoses**
  (CAD, hypertension, COPD, diabetes, obesity)
- **Based on accepted Clinical Practice Guidelines**
- **Two to five interventions per disease**
- **All interventions weighted equally**
- **Calculation:**

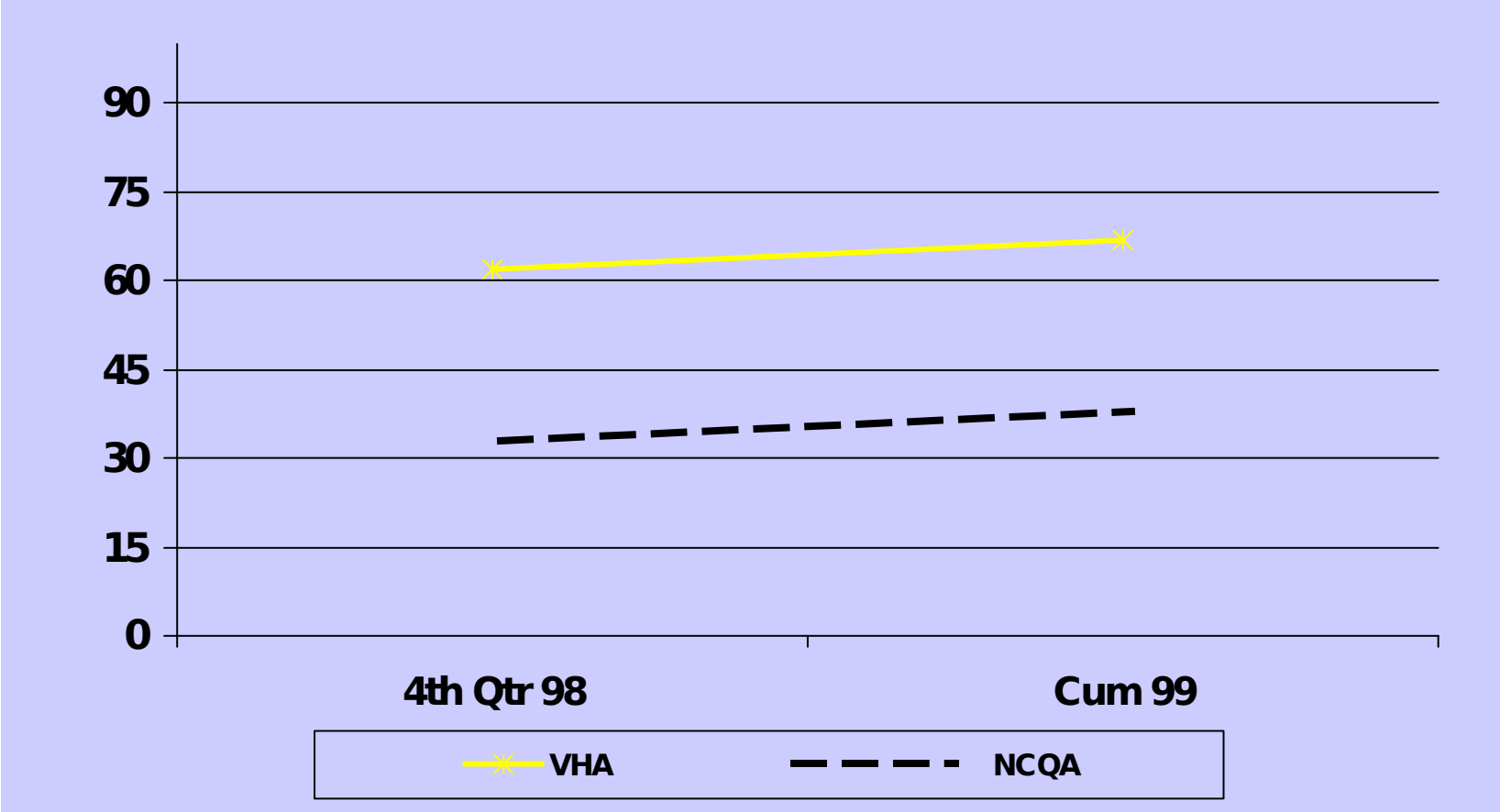
$$\frac{\#\text{patients receiving the intervention}}{\#\text{patients eligible for the intervention}}$$

Beta Blocker following AMI in VHA Medical Centers

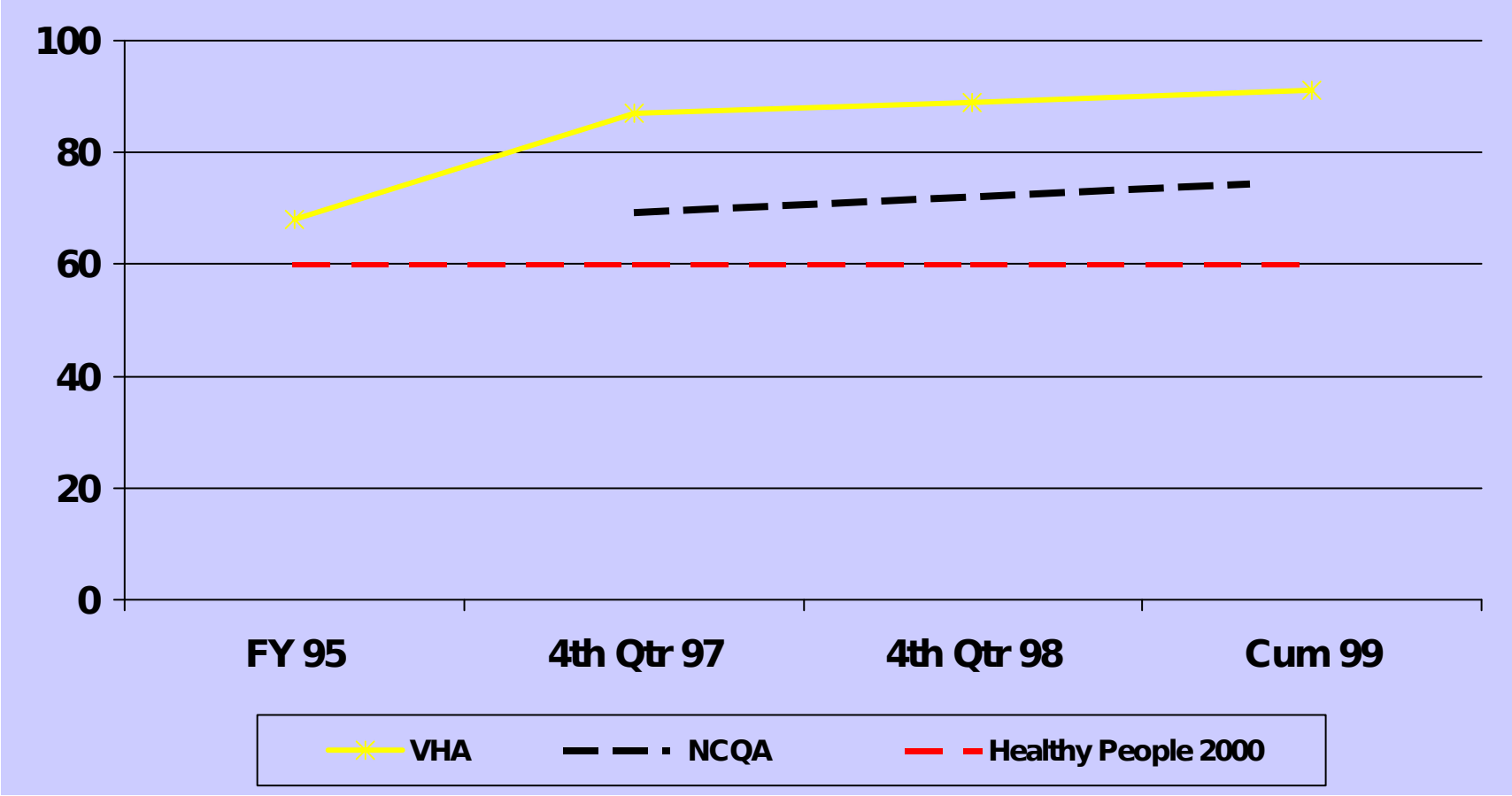


AHCPR: Soumerai *et al. JAMA* 1997;277(2):115-21
Non-Govt: Krumholz HM *et al. Ann Int Med* 1999;131(9):648-54

Diabetic Retinal Eye Exam



Breast Cancer Screening



NSQIP

A Benchmark Program

- **National Surgical Quality Improvement Program**
- **Prospective entry and assessment of $1{,}000{,}000^{+}$ cases**
- **Several major publications**
- **Key step in basing surgical QI on data**
- **Endorsement by American College of Surgeons**

National Surgical Quality Improvement Program

The VA Continuous Improvement in Cardiac Surgery Study
Annals Thoracic Surgery 1994; 58:1845-1851

Continuous assessment and improvement in quality of care: the VA model
Annals Surgery 1994; 219:281-290

The National VA Surgical Risk Study
J Amer College Surgeons 1995; 180:519-531

Risk Adjustment for Assessment of Quality of Surgical Ca

Mortality: *J Amer College Surgeons* 1997; 185: 315-327

Morbidity: *J Amer College Surgeons* 1997; 185: 328-340

Elements of the NSQIP

- **Prospective risk factor collection**
- **Thirty day follow-up for mortality & morbidity**
- **Risk-adjusted outcomes calculated (M&M)**
- **Data placed in hands of the owners first (and then in the hands of oversight bodies)**
- **Longer use has led to increased compliance and enthusiasm for collection and use of data elements.**

National Surgical Quality Improvement Program Recognition

- **American College of Surgeons: "model of excellence"**
- **American Board of Surgery: "national standard of care"**
- **Private sector pilot studies begun at**
  - ✓ **University of Michigan**
  - ✓ **University of Kentucky**
  - ✓ **Emory University**

So what ? (tangibles)

- ☑ several studies show VHA quality
- ☑ Congressional inquiries fell 90%
- ☑ VA clinicians on quality panels
- ☑ Criticism has shifted to cost
- ☑ More articles about VA quality
- ☑ Requested article in JCOM

JCOM 1995; 2:67-76

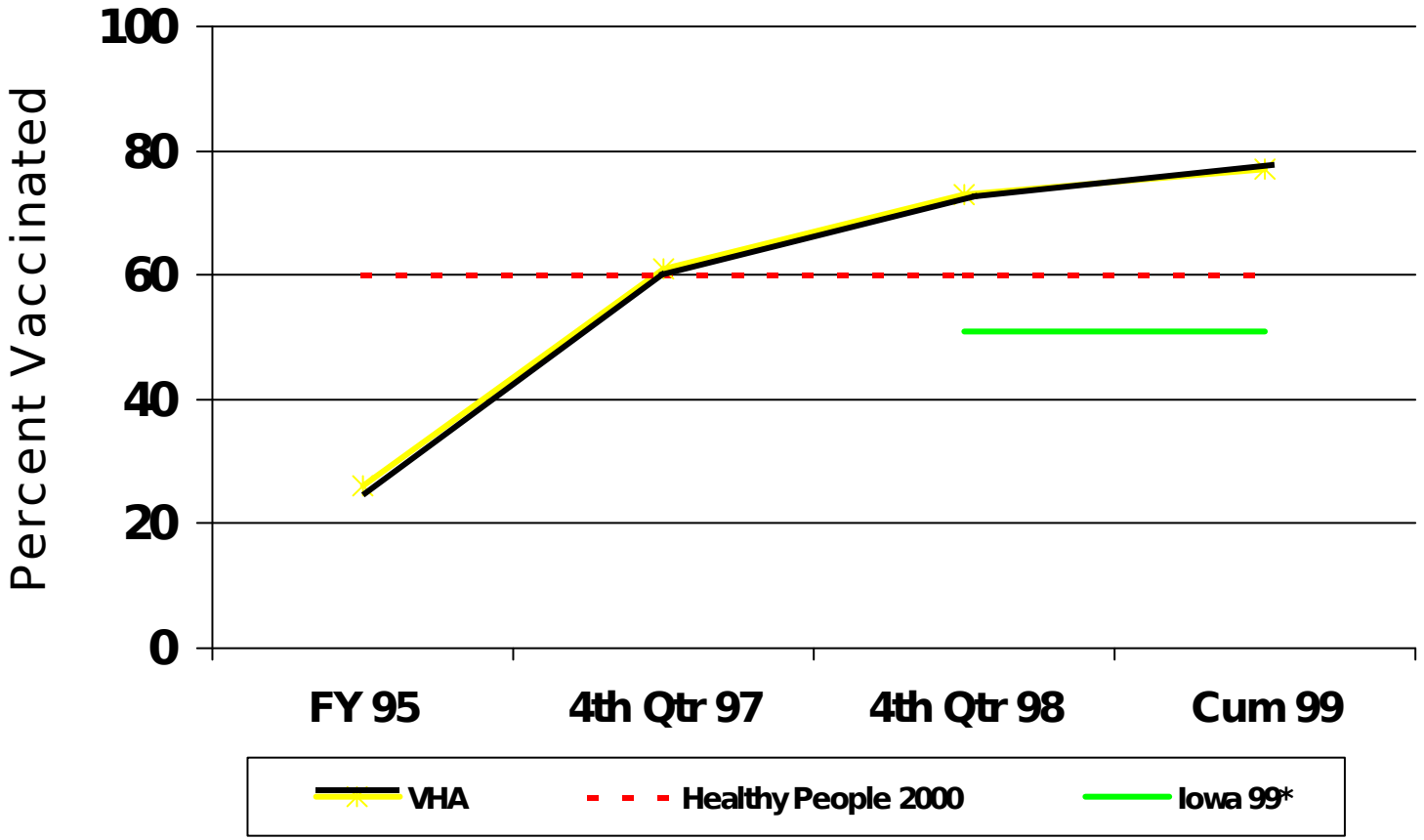
So what ? (intangibles)

- ☑ More VA physicians in “Q”
- ☑ QA managers are Directors
- ☑ VHA instituting data-driven mgmt
- ☑ System better able to change and adapt to current pressures

So what ?

- ☑ Improved quality of care
- ☑ Benchmarks in quality established
- ☑ System better able to demonstrate strengths and address weaknesses

Pneumococcal Vaccination Rates



* Iowa: Petersen, *Med Care* 1999;37:502-9. >65/ch dz

VHA Benchmark Activity

- Influenza vaccination
- Pneumococcal vaccination
- Post AMI Rx with Beta-blocker
- Diabetic care (eye exams, foot exams, HbA1c)
- Cancer Screening (colon, breast, cervix)

Comments:

- **What gets measured gets improved**
- **Involvement from the top drives improvement at every level**
- **Large systems can generate momentum**
- **All improvement is local**

Conclusions

- ✓ **VHA and Federal Medicine are delivering benchmark level quality care**
- ✓ **VHA can (and has) demonstrated its high quality care in several areas.**
- ✓ **These areas have shown continuous improvement over several years**
- ✓ **The improvements began after implementation of a national measurement and performance evaluation system was introduced**.

SUMMARY

- VHA has implemented a data-driven performance measurement system . . .

  . . . that has produced benchmark performance in health care
- Measurements are primarily focused on clinical care attributes. . .

  . . . and are cascaded through the system
- Performance expectations are clear and measurable

The Department of Veterans Affairs . . .

. . . the Best Care !